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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VAUGHN, GREGORY J

ART UNIT

PAPER NUMBER

2178

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,920

Applicant(s)

BRODERSEN ET AL.

Examiner

Gregory J. Vaughn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Application History*

1. This action is responsive to the application amendment, filed on 1/7/2005.
2. Applicant has amended claims 1-4, 6-9, 11, 12, 14, 17-20 and 22-24.  
Applicant has added new claims 27-29.
3. Claims 1-29 are pending in the case, claims 1, 6, 11, 17 and 22 are independent claims.
4. Applicant has amended the specification in response to the objections cited by the examiner in the *Drawings* and *Specification* sections of the previous office action (dated 10/4/2004). Applicant's amendment has addressed the objections previously made, and therefore, in view of the amendment, objections to the drawings and specification are withdrawn.

**Priority** Applicant's claim for domestic priority of US provisional application 60/283,713, filed 4/14/2001, under 35 U.S.C. 119(e) is acknowledged.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*"A person shall be entitled to a patent unless –*

*(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language."*

7. Claims 1-4, 6-9, 11-14, 16-20 and 22-25 remain rejected and claims 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Williams US Patent 6,591,272, filed 2/22/2000, patented 7/8/2003.

8. **Regarding independent claim 1**, Williams discloses finding a set of records of a database matching an instance of a component of an object type. Williams recites: *"The process of interrogation of relational database schema or catalogs to obtain information pertaining to the database tables and the interrelationships between database tables is well known"* (column 2, lines 59-62) and *"The use of software to map objects from relations and data in relational database management systems or vice versa to object oriented applications is also well known"* (column 3, lines 3-5).

Williams discloses updating the set of records of the database based upon a first set of instances of components of the object type, the instance of components of the first set corresponding to the records of the set of records. Williams recites: *"In the prior art, one could typically update the underlying relational database(s) exclusively through the object system"* (column 3, lines 58-59) and *"The present invention also relates to a method of communication of changes to existing objects from client computers and their conversion into updates to one or more rows so as to modify the rows of the appropriate tables in the corresponding databases in transactional mode"* (column 5, lines 34-38).

Williams discloses inserting new records in the database corresponding to a second set of instances of components of the object type, the instances of components of the second set not matching the records of the set of records. Williams recites: *"For object insertions, an OSFORBStream is built in the client that contains the new attributes of the object to be inserted"* (column 14, lines 2-4) and *"## attributeName## tells OSFGenerate to take the name of the current attribute on this iteration of the repeat block, change the first character of the attribute name to lower case, then insert this attribute name in place of the ##attributeName## target"* (column 25, lines 57-61).

9. **Regarding dependent claim 2**, Williams discloses deleting records related to the object. Williams recites: *"The present invention also relates to a method of communication removal existing objects from client computers so*

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*as to delete the rows of the appropriate tables in the corresponding databases in transactional mode"* (column 5, lines 39-42).

10. **Regarding dependent claim 3**, Williams discloses the use of users keys related to the object instance. Williams recites: "Further, validation of a sequence number, client IP address, client hostname and timestamp is performed on each received session security token before the username contained therein is used for an access check" (column 19, lines 15-19).
11. **Regarding dependent claim 4**, Williams discloses the use of SQL. Williams recites: "Pseudo-objects are then produced by dynamic generation and execution of pre-optimized SQL, enveloping values that result from execution of the generated prepared SQL statements" (column 5, lines 2-5).
12. **Regarding independent claims 6, 11, 16, 17 and 22**, the claims are directed toward a method, apparatus, method, machine-readable medium and a system (respectively) for the method of claim 1, and remain rejected using the same rationale.
13. **Regarding dependent claims 7, 12, 18 and 23**, the claims are directed toward a method, apparatus, machine-readable medium and a system (respectively) for the method of claim 2, and remain rejected using the same rationale.
14. **Regarding dependent claims 8, 13, 19 and 24**, the claims are directed toward a method, apparatus, machine-readable medium and a system

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(respectively) for the method of claim 3, and remain rejected using the same rationale.

15. **Regarding dependent claims 9, 14, 20 and 25**, the claims are directed toward a method, apparatus, machine-readable medium and a system (respectively) for the method of claim 4, and remain rejected using the same rationale.

16. **Regarding dependent claims 27-29**, Williams discloses recursively repeating the finding, updating and inserting with respect to children of the object. Williams recites: *"The records returned would have been appended to the "raw" OSFORBStream and the process repeated until all subtables associated with the child object were read. This generalized model works for all table interrelationships, no matter how many foreign keys, primary keys or tables are involved in the creation (or insertion, update and delete) of the PRO-OBJECT"* (column 73, lines 44-51).

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

18. Claims 5, 10, 15, 21 and 26 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Cseri et al. US Patent 6,708,164, filed 3/17/2000, patented 3/16/2004.

19. **Regarding dependent claim 5**, Williams discloses recursively finding, updating, inserting and deleting records of a relational database as described above. Williams fails to disclose cascaded deleting. Cseri teaches the use of cascaded deleting. Cseri recites: *"if a relational schema provides information about cascading delete constraints, then the cascading delete constraints is taken to indicate nesting. In a relational system, a cascading delete constraint permits specifying that children of a parent are automatically deleted, if the parent is deleted"* (column 7, lines 13-18).

Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made to use cascaded deleting as taught by Cseri with the data translation invention of Williams in order *"for information exchange among networked applications and the continuing and increasing*



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*use of relational database systems for managing businesses"* (Cseri, column 1, lines 14-16).

20. **Regarding dependent claims 10, 15, 21 and 26**, the claims are directed toward a method, apparatus, machine-readable medium and a system (respectively) for the method of claim 5, and remain rejected using the same rationale.

**Response to Arguments**

21. Applicant's arguments filed 1/7/2005 have been fully considered but they are not persuasive.
22. **Regarding independent claim 1**, the applicant states: *"Note that "an object type" is completely different from "an object" (page 15, third paragraph of the amendment filed 1/7/2005). Applicant is directed to the rejection of claim 1 as restated above. Note that Williams is directed toward "information pertaining to database tables", which inherently includes object types.*
23. **Also regarding independent claim 1**, the applicant recites: *"In Col. 2, lines 59-62 and Col. 4, lines 60-61 of Williams, nothing corresponds to "a set of records of a database matching an instance of a component of an object type" of claim 1" (page 16, second paragraph of the amendment filed 1/7/2005). Applicant is directed to the rejection of claim 1 as restated above.*
24. **Also regarding independent claim 1**, the applicant recites: *"Williams does not anticipate the claim section" (page 16, third paragraph of the amendment filed 1/7/2005). Applicant is directed to the rejection of claim 1 as restated above.*
25. **Also regarding independent claim 1**, the applicant recites: *"the assertion does not anticipate a specific process of "inserting new records in the database corresponding to a second set of instances of components of the object type, the instances of components of the second set not matching*

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*records of the set of records" of claim 1"* (page 17, fourth paragraph and page 18 first paragraph of the amendment filed 1/7/2005). Applicant is directed to the rejection of claim 1 as restated above. Note that Williams discloses the new name (i.e. the second set of instances of the components of the object type) does not match the set of records.

26. **Regarding dependent claim 28**, the applicant recites: *"Williams is clearly not about repeating "the finding, updating and inserting "that are specified in claim 1"* (page 18, third paragraph of the amendment filed 1/7/2005). Applicant is directed to the rejection of claim 28 as restated above.

27. **Regarding independent claim 6**, the applicant recites: *"claim 1 and claim 6 are clearly different"* (page 19, fifth paragraph of the amendment filed 1/7/2005). Applicant states that *"component of an object type"* and *"object type"* are not the same. Applicant gives additional examples of differences between claim 1 and 6 on page 19 of the amendment filed 1/7/2005. Although the examiner has noted the difference in wording in these claims, the examiner considers *"finding a set of records of a database matching an instance of a component of an object type"* (claim 1) and *"finding a set of records of a database matching an instance of an object type"* (claim 6) to be limitations directed toward substantially the same subject matter. The other limitations of claim 6 are also considered to be directed toward substantially the same subject matter as claim 1.

***Conclusion***

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Vaughn whose telephone number is (571) 272-4131. The examiner can normally be reached Monday to Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached at (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-2100.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory J. Vaughn  
May 9, 2005



**STEPHEN HONG**  
**SUPERVISORY PATENT EXAMINER**